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EXAMINER

CRAIG, DWIN M

ART UNIT

PAPER NUMBER

2123

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03/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,241	Applicant(s) SERIZAWA ET AL.	
	Examiner DWIN M. CRAIG	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/4/2006, 6/26/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-7 have been presented for examination.

Priority

2. The Examiner acknowledges Applicants' claim to foreign priority document Japanese Laid Open Patent Application No. 2003-380656 filed on November 11th 2003.

Information Disclosure Statement

3. In the Information Disclosure Statement dated 6/26/2006 Foreign Patent Documents reference "AL", document number 4-64164 and "AM" document number 10-335193 were not considered because no translated abstract was provided. 37 C.F.R. 1.98 states that; "A copy of the translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession, custody, or control of, or is readily available to any individual designated in § 1.56(c)." The Examiner respectfully requests that Applicants' provide at least a translated abstract of the above identified Foreign Patent Documents.

Specification

4. A substitute specification excluding the claims is required pursuant to 37 CFR 1.125(a) because the current specification is filled with grammatical errors, for example, paragraph [0012] is the sentence fragment, "for a process simulation system to function a computer as the process simulation system" grammatically awkward and disjoint and in paragraph [0013] is disclosed, "even when the element arrangement data *are* changed for executing a different process" wrong tense of the word "are", *emphasis added*, and in paragraph [0037] "a process simulation system **1** *is* for executing a simulation", grammatically awkward and disjoint, wrong tense of the word *is*

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and unclear as to what is being disclosed, more specifically, is the process simulation system required for simulation of a process or the sentence could be interpreted to mean that the process simulation system can only execute a single simulation. These are examples only, merely correcting these three sentences will not bring the specification into compliance accepted USPTO practice, the entire specification requires a thorough editing to ensure that the text is grammatically correct.

4.1 A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

4.2 A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

5.1 Taking claim 1 as an example, it is unclear from the specification what exactly are the *element arrangement data reading means*, the *element definition file reading means*, the *program array preparing means*, and the *program execution means*, these claimed means could be interpreted to be software modules, software *per se* is non-statutory subject matter.

See MPEP section 2106.01.

5.2 Claims 1-6 are rejected under 35 U.S.C. § 101 because all process claims **must** (1) be “*tied*” to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as article or materials) to a different state or thing. *See Diamond v. Diehr*, 450 U.S. 175, 184(1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70(1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim element's "element arrangement data reading means", "element definition file reading means" and "program array preparing means" is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. The current specification merely provides a block diagram with labels saying "element arrangement data reading means", "element definition file reading means" and "program array preparing means" and yet there is no further explanation given as to what components comprise the "element arrangement data reading means", "element definition file reading means" and "program array preparing means". There needs to be a specific mapping as to what functional elements make up each of these different structural components and how these different components interact and are functionally and structurally different from each other.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant is required to clarify the record by either:

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(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

6.1 Claims 1-7 are rejected under 35 U.S.C. 112 2nd paragraph because it is unclear exactly which statutory category of subject matter Applicants' are seeking patent protection for. For example, independent claim 1 discloses a *process simulation system*, composed of software modules to perform manipulation of files and configure a program for performing a simulation. Then, in dependent claim 7, is disclosed that Applicants' are seeking protection for a computer program product, which is a different statutory category of claimed subject matter. It is unclear if Applicants' are seeking protection for a computer program product on a computer readable storage medium or a system comprised of software modules which may also contain an *execution means*.

Clarification and amendment are required.

6.2 Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claim 2, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Interpretation – comments

7. Applicants' current claims are unclear as to what the metes and bounds of the current claims are describing, however, in view of MPEP section 2143.02 (I) in the section entitled, INDEFINITE LIMITATIONS MUST BE CONSIDERED is clearly disclosed;

A claim limitation which is considered indefinite cannot be disregarded. If a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim as indefinite under 35 U.S.C. 112, second paragraph (see MPEP § 706.03(d)) and should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. Ex parte Ionescu, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984) (Claims on appeal were rejected on indefiniteness grounds only; the rejection was reversed and the case remanded to the examiner for consideration of pertinent prior art.). Compare In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970) (if no reasonably definite meaning can be ascribed to certain claim language, the claim is indefinite, not obvious) and In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

While Applicants' claims have been rejected to be indefinite the Examiner has applied the following interpretation to said claims.

A process simulation system for executing a process simulation by simulating operations of various component elements constituting a production system so as to determine a process organization of the production system, This limitation has been interpreted to mean any system that simulates workflow in an environment that has more than one device.

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comprising: an element arrangement data reading means for sequentially reading component element names which are combined with process identification names from an element arrangement data, the element arrangement data describing an arrangement of the various component elements constituting the production system with combinations of the process identification names and the component element names along a work flow; This limitation has been interpreted to mean any method of organizing data for a simulation of a process that has a workflow, any method of organizing data in a tabular or array would meet the call of this claim limitation.

an element definition file reading means for sequentially reading element definition files corresponding to component element names which had been read in by the element arrangement data reading means from a plurality of element definition files, the element definition files describing simulation programs for executing operational simulations of the various component elements for each of the component elements; This is being interpreted to mean any configuration file that has information regarding the parameters of the elements in a simulation would meet the call of this limitation.

a program array preparing means for preparing a simulation program array by sequentially arranging simulation programs respectively described in element definition files which had been read in by the element definition file reading means; This is being interpreted to mean any configuration file that has information regarding the parameters of the elements in a simulation would meet the call of this limitation.

and a program execution means for simulating operations of the various component elements constituting the production system by executing a series of simulation programs

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included in the simulation program array prepared by the program array preparing means. The execution of a simulation reads on this limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,967,386 to Maeda et al. in view of U.S. Patent 6,970,816 to Bryan et al.

8.1 As regards independent claim 1, *Meada et al.* teaches a process simulation system for executing a process simulation by simulating operations of various component elements constituting a production system so as to determine a process organization of the production system, comprising: an element arrangement data reading means for sequentially reading component element names which are combined with process identification names from an element arrangement data, the element arrangement data describing an arrangement of the various component elements constituting the production system with combinations of the process identification names and the component element names along a work flow; a simulation system with data that has component names and arranged so that the components form a production system, see Figure 1 for the simulation system teaching, see Figures 3 and Figure 5-7 which shows, with process identification names from an element arrangement data, (Figures 5, 6 & 7) the element arrangement data describing an arrangement of the various component elements constituting the production system with combinations of the process identification names (Figure 7, "Wait", "Work", "Completion") and the component element names along a work flow See Figure 9 which discloses a time line of workflow, see also Col. 1 lines 5-13 which teaches a simulation system and method, see Col. 5 lines 19-49 which describes the name of the equipment in the equipment table as disclosed in Figures 5, 6 & 7, see also Col. 10 lines 44-55 which discloses workflow simulation.

and a program execution means for simulating operations of the various component elements constituting the production system by executing a series of simulation programs

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included in the simulation program array prepared by the program array preparing means. See Figure 1 items 2, 3, 4, 5, 6, 7, and 8 which disclose a simulation program execution means as well as Figures 4, 13 & 14 and the descriptive text as regards executing the simulation.

However, Meada et al. does not explicitly disclose, an element definition file reading means for sequentially reading element definition files corresponding to component element names which had been read in by the element arrangement data reading means from a plurality of element definition files, the element definition files describing simulation programs for executing operational simulations of the various component elements for each of the component elements; a program array preparing means for preparing a simulation program array by sequentially arranging simulation programs respectively described in element definition files which had been read in by the element definition file reading means.

Bryan et al. discloses, an element definition file reading means for sequentially reading element definition files corresponding to component element names which had been read in by the element arrangement data reading means from a plurality of element definition files, the element definition files describing simulation programs for executing operational simulations of the various component elements for each of the component elements; a program array preparing means for preparing a simulation program array by sequentially arranging simulation programs respectively described in element definition files which had been read in by the element definition file reading means, which is being interpreted to mean a configuration file which discloses elements and configurations of how the simulation is supposed to be performed is loaded into the simulation system before the simulation is actually executed, see Figure 3, more specifically item 300 "Parse configuration file; initialize parameters" further see item 308 which

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states, "Update parameter value" which teaches *reading element definition files*, the parameters in this case are the elements, as regards *sequentially arranging simulation programs respectively described in element definition files*, see Col. 2 lines 59-67 and Col. 3 and Col. 4 lines 1-58 which describes how the configuration file based on parameter values programs the simulation.

Meada et al. and *Bryan et al.* are analogous art because they both come from the same problem solving area of simulation.

At the time of the invention, it would have been obvious to a person of ordinary skill, to have used a configuration file to configure the simulator as disclosed in *Meada et al.*

The motivation for doing so would have been to provide a method of scripting how the simulation would execute so that the configuration wouldn't have to manually typed in each time the simulation is executed. Further and in regards to the requirement for a teaching, suggestion and/or motivation please see *Dann v. Johnson*, 425 U.S. 219, 189 USPQ 257 (1976) and *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, --F.3d--, 82 USPQ2d 1687 (Fed. Cir. 2007) as well as *KSR International Co. v. Teleflex Inc.*, 550 U.S. --, 82 USPQ2d 1385 (2007). The cited cases recently decided by the Federal Circuit Court as well as the U.S. Supreme Court clearly set forth that the references themselves do not have to expressly disclose a teaching, suggestion or motivation to combine references in an obviousness type of art rejection.

Therefore, it would have been obvious to combine the teachings of *Bryan et al.* with the teachings of *Meada et al.* in order to obtain the invention as specified in claims 1-4 and 7.

8.2 As regards claim 2, *Meada et al.* does not expressly disclose, *wherein the element arrangement data comprise tabular form data prepared using a software capable of editing to, for example, add and delete textual information, the work flow being set in a row direction, and*

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the process identification names and the component element names being described in a line direction.

However, it would have been obvious, to an artisan of ordinary skill, at the time of the invention to edit the configuration file as disclosed in *Bryan et al.* see Col. 2 lines 42-44, “...allows the configuration file and resultant test case to be easily customized to a specific DUT”, customization infers the use of an editor.

8.3 As regards claim 3, *Meada et al.* teaches *wherein each of the element definition files contains a program description describing an own simulation program and a variable description describing a variable used in the own simulation program, in the variable description, an external reference variable to designate a referring variable being defined in a case of an element definition file to refer to a variable in an other element definition file, and a take-out variable referred to by an external reference variable being defined in a case of an element definition file to make an other element definition file refer to a variable, the process simulation system further comprising: a variable array preparation means for preparing a variable array including all variables described in the variable description of each of the element definition files which had been read by the element definition file reading means; and a variable corresponding means for making the external reference variable contained in the variable array prepared by the variable array preparation means correspond to the take-out variable* see Figures 3 and 5-7 and 8 which clearly teach *variables and descriptions and referring to a variable file* and an array however, *Meada et al.* does not expressly disclose a *preparation means*. *Bryan et al.* teaches a preparation means, *editing* see Col. 2 lines 42-44, “...allows the

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configuration file and resultant test case to be easily customized to a specific DUT”, customization infers the use of an editor.

8.4 As regards claim 4, *Meada et al.* Does not expressly disclose, *a variable name replacing data for replacing a variable name described in the variable description of each of the element definition files to a different variable name is described in the element arrangement data, the process simulation system further comprising a variable name replacing means for replacing a variable name for which the variable name replacing data is set in the element arrangement data to an other variable name described in the variable name replacing data.*

However, *Meada et al.* does teach using variables, see above, *Bryan et al.* teaches a *replacement means, editing* see Col. 2 lines 42-44, “...allows the configuration file and resultant test case to be easily customized to a specific DUT”, customization infers the use of an editor.

8.5 As regards claim 7, *Meada et al.* does not expressly disclose a computer readable storage medium, *Bryan et al.* teaches a computer readable storage medium, see Figure 4 item 401 and the descriptive text.

Allowable Subject Matter

9. Any indication of allowable subject matter is being held in abeyance pending the resolution of the 35 U.S.C. 101 and 35 U.S.C. 112 rejections as set forth in this office action.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DWIN M. CRAIG whose telephone number is (571)272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dwin M Craig/
Examiner, Art Unit 2123